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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|----------------------------------|----------------------|------------------------|------------------|
| 10/613,591 | 07/03/2003 | Kadri N. Jabri | 070191-0355 (131222XZ) | 2426 |
| | 7590 01/22/2008 | EXAMINER | | |
| | LARDNER LLP | TUCKER, WESLEY J | | |
| | CONSIN AVENUE , WI 53202-5306 | | ART UNIT | PAPER NUMBER |
| , | ·, ····· | | 2624 | |
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| | | | MAIL DATE 01/22/2008 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) | | | | |
|--|---|--|--|--|--|--|
| | 10/613,591 | JABRI ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Wes Tucker | 2624 | | | | |
| The MAILING DATE of this communication ap | | | | | | |
| Period for Reply | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING C - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b). | DATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be tim will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE! | J. nely filed the mailing date of this communication. (35 U.S.C. § 133). | | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) filed on <u>02 N</u> | November 2007. | | | | | |
| 2a) ☐ This action is FINAL . 2b) ☒ Thi | This action is FINAL . 2b)⊠ This action is non-final. | | | | | |
| • • | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | | | | | | |
| 4) ⊠ Claim(s) 1-54 is/are pending in the application 4a) Of the above claim(s) 22-48 is/are withdra 5) ☐ Claim(s) is/are allowed. 6) ⊠ Claim(s) 1-9,13,15-21 and 49-52 is/are rejected 7) ⊠ Claim(s) 10-12,14,53 and 54 is/are objected to 8) ☐ Claim(s) are subject to restriction and/or | wn from consideration. ed. o. | | | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the Examina 10) The drawing(s) filed on 03 July 2003 is/are: a) Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the E | accepted or b) \square objected to be drawing(s) be held in abeyance. See stion is required if the drawing(s) is obj | ected to. See 37 CFR 1.121(d). | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa 6) Other: | te | | | | |

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DETAILED ACTION

Response to Amendment

- 1. Applicant's amendment filed November 2nd 2007 has been entered and made of record.
- 2. Applicant has amended claim 49. Claims 22-48 have been cancelled. Claims 1-21 and 49-54 are pending.
- 3. Applicant's remarks have been fully considered and are found persuasive with regard to the independent claims. A new rejection is presented below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claim 1-9, 13, 15-21 and 49-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of patents 6,535,570 to Stergiopoulos et al. and 6,178,220 to Freundlich et al.

With regard to **claim 1** Stergiopoulos discloses a method of creating and displaying images resulting from digital tomosynthesis performed on a subject using a

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flat panel detector comprising the steps of: acquiring a series of x-ray images of the subject, the x-ray images being acquired at two or more different angles relative to the subject (col. 5 lines 10-13); applying a first set of corrective measures to the series of images (col. 5 lines 30-45 and (col. 7 lines 13-17, 39-42 and 49-50); reconstructing the series of images into a series of at least one slice through the subject (col. 6 lines 41-58, line 65 to col. 7 lines 1-12); and displaying the images or slice according to at least one of a plurality of display options (col. 8 lines 21-24, col. 13 lines 58-67).

Stergiopoulous does not explicitly disclose the step of applying a second set of corrective measures to the reconstructed slice. Freundlich teaches enhancing a reconstructed slice image in order to further enhance visibility of image features (column 5, lines 14-20). It would have been obvious to one of ordinary skill in the art at the time of invention to enhance the reconstructed slice of Stergiopoulos as taught by Freundlich in order to further enhance image feature visibility.

With regard to **claim 2** Stergiopoulos discloses the first set of corrective measures includes at least one of detector correction, intensity correction, scatter correction, geometric correction, motion correction, material decomposition, noise reduction, and filtration (motion correction, col. 5 line 35).

With regard to **claim 3** Freundlich discloses the second set of corrective measures includes at least one of filtering, motion correction, noise reduction,

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presentation processing, and material decomposition (noise reduction and artifact removel at column 5, lines16-20).

With regard to **claim 4** Stergiopoulos discloses the display options allow for at least one of a selection of the region of interest, segmentation, formatting of the images, rendering and creation of a three-dimensional display, and creation of a two-dimensional display (two dimensional images, col. 10 lines 39-51 on display 12).

With regard to **claim 5** Stergiopoulos discloses the step of displaying the images or slice according to at least one of a plurality of display options comprises the step of displaying one or more of the images in a two-dimensional display (two dimensional images, col. 10 lines 39-51 on display 12).

With regard to **claim 6** Stergiopoulos discloses displaying the images or slice according to at least one of a plurality of display options comprises the step of displaying one or more of the images in a three-dimensional display (col. 15 lines 26-33).

With regard to **claim 7** Stergiopoulos discloses applying computer assisted processing and diagnosis algorithms to data represented by the images or slice (col. 10 lines 32-34 and col. 12 lines 4-17).

With regard to **claim 8** Stergiopoulos discloses archiving data represented by the images or slice (archiving in the computer illustrated in Figure 9 and its respective portions in the specification at col. 10 lines 39-51).

With regard to **claim 9** Stergiopoulos discloses the step of acquiring a series of x-ray images of the subject is performed before the step of reconstructing the series of images into a series of at least one slice through the subject (it is clearly shown at col. 5 and col. 6 that these two steps happen in that order – also discussed above in claim 1).

With regard to **claim 13** Stergiopoulos discloses the step of reconstructing the series of images into a series of at least one slice through the subject further comprises the step of applying a reconstruction algorithm to the data represented by the series of x- ray images, the reconstruction of the at least one slice being optionally based on historical information relating to at least one of the physical condition of the subject, the pathological condition of the subject, and the acquisition parameters of at least one previous acquisition (based on the previous acquisition – time dependent – col. 6 lines 41-58, col. 6 lines 65-67).

Claim 15 recites identical features as claim 1 except claim 15 is a system claim.

Please see the system illustrated in Figure 9. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 15.

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Claims 16-17 recites identical features as claim 2. Thus, arguments similar to

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that presented above for claim 2 are equally applicable to claims 16-17.

Claim 18 recites identical features as claim 3. Thus, arguments similar to that

presented above for claim 3 is equally applicable to claim 18.

Claim 19 recites identical features as claim 4. Thus, arguments similar to that

presented above for claim 4 is equally applicable to claim 19.

Claim 20 recites identical features as claim 7. Thus, arguments similar to that

presented above for claim 7 is equally applicable to claim 20.

Claim 21 recites identical features as claim 8. Thus, arguments similar to that

presented above for claim 8 is equally applicable to claim 21.

Claim 49 recites identical features as claim 1. Thus, arguments similar to that

presented above for claim 1 is equally applicable to claim 49.

Claim 50 recites identical features as claim 2. Thus, arguments similar to that

presented above for claim 2 is equally applicable to claim 50.

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Claim 51 recites identical features as claim 13. Thus, arguments similar to that

presented above for claim 13 is equally applicable to claim 51.

Claim 52 recites identical features as claim 4. Thus, arguments similar to that

presented above for claim 4 is equally applicable to claim 52.

Allowable Subject Matter

5. Claims 10-12, 14 and 53-54 are objected to as being dependent upon a

rejected base claim, but would be allowable if rewritten in independent form including all

of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Wes Tucker whose telephone number is 571-272-

7427. The examiner can normally be reached on 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Wes Tucker

1-15-08